

## TRANSCONDUCTANCE DEVICE EMPLOYING NATIVE MOS TRANSISTORS

## ABSTRACT OF THE DISCLOSURE

A system on chip such as a radio receiver has reduced susceptibility to voltages in the bulk silicon by using gyrator elements in the receiver with each gyrator element including a plurality of current sources interconnected to provide output transconductance voltages, and a variable load for the current sources including first and second load resistors each serially connected with one other plurality of current sources. A variable resistance interconnects nodes of the load resistors with the variable resistance comprising a pair of native MOS transistors having low threshold voltages. In a preferred embodiment the first and second load resistors comprise first and second MOS transistors with the pair of native transistors serially connected between source elements of the first and second MOS transistors.

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